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ABSTRACT

A study was conducted to describe some of the tools, techniques, and approaches that secondary school educators use to direct change activities. It presented early evidence of successful use of two sets of vocational education resource materials in 12 demonstration sites, 6 for each resource. The materials were "BASICS: Bridging Vocational and Academic Skills," which helps teachers provide students with the basic skills needed by today's work force, and "CONNECTIONS: School and Work Transitions," which helps ease the problems involved in the transition from school to work. Data were collected by a preimplementation survey of participants at an orientation workshop, telephone interviews with each site coordinator, and a survey of users after adoption of materials. Findings indicated that research-based vocational education resources offer how-to-do-it frameworks of ideas for teachers; help to defuse objections of staff and school boards who are resistant to change; set the climate for change; reinforce activities that teachers already do; and increase the credibility of a learning activity with students. Successful implementation called for extensive time and effort devoted to key activities and for ongoing support from administrators and educational leaders. (YLB)



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# INITIATING CHANGE IN SECONDARY EDUCATION:

# ENHANCING BASIC SKILLS ACQUISITION AND THE SCHOOL-TO-WORK TRANSITION USING RESEARCH-BASED VOCATIONAL EDUCATION RESOURCES

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## FOREWORD

This report represents the cumulative efforts of researchers and practitioners in addressing two of the most critical issues that are facing secondary schools today. These issues are (1) bridging academic and vocational skills acquisition, and (2) easing students' transition from school to work. The two research-based resources of the present report help to address these two issues. These resources were developed by compiling findings from empirical investigations by the National Center for Research in Vocational Education during the last 20 years. The resources were adopted by practitioners representing diverse populations of educational settings, staffs, and students in various state and local contexts.

Although the findings of the present report provide only early evidence of change, they are noteworthy for two reasons. First, common themes emerge about the nature of implementation processes. Second, these themes are represented in much of the theoretical and empirical literatures on educational change. Perhaps the most important finding of the present report along these lines is a confirmation: change is a complex process requiring careful negotiation between organizations and among staff. Successful change outcomes call for extensive time and effort devoted to key activities and for ongoing support from administrators and educational leaders. Not one but all of these elements must be in place and maintained throughout the change process.

Appreciation is expressed to the 12 schools, site coordinators, and school staff for their contributions to the project. The National Center is indebted to Dr. Jay Smink, Senior Research Specialist, who served as project director, and to Linda Eberst Dorsten, Graduate Research Associate. Recognition also is given to Dr. Shirley A. Chase, Research Specialist, who served as Demonstration Sites Coordinator and reviewed earlier drafts of the report; to Donna Childs who provided word processing assistance; and to Judy Balogh who supervised the final editorial review.

Ray D. Ryan
Executive Director
National Center for Research
in Vocational Education

## EXECUTIVE SUMMARY

The present report describes some of the tools, techniques, and approaches that secondary school educators use to direct change activities. The report also presents early evidence of successful use of two sets of vocational education resource materials. The two sets of materials were developed specifically to meet the needs of secondary school staff in addressing two critical problems facing today's schools and their members. The two innovations are entitled BASICS: Bridging Vocational and Academic Skills, and CONNECTIONS: School and Work Transitions. The BASICS educational resource helps teachers provide students with the basic skills needed by today's work-force. CONNECTIONS helps ease the problems involved in the transition from school to work. The materials are based on research findings from studies by the National Center for Research in Vocational Education and are designed to initiate and/or supplement a program improvement effort at the local secondary school level. Several questions guided the study of implementation efforts. These questions are What external influences are most likely to play a key role in whether or not schools can implement a change activity?, What internal resources are most important, and how do external and internal influences combine to promote or hinder level of use of an educational product?

Twelve demonstration sites, 6 for each resource, were selected in which to study the initial processes associated with implementation. Ongoing technical assistance was offered to each of the 12 sites. Survey data were collected from participants in orientation workshops at each of the demonstration sites. These data were augmented with data obtained through telephone interviews with site coordinators.

Perhaps the most important finding of the present report is a confirmation: change is a complex process requiring careful negotiation among organizations and staff. Successful change in educational settings calls for extensive time and effort devoted to key activities and for ongoing support from administrators and educational leaders. Not one but all of these elements must be in place and maintained throughout the change process.

Information about the adoption of the resource materials will assist potential users in deciding whether to implement the resources in their own local education agency and will help guide their initial efforts in promoting change.

## CHAPTER 1

## OVERVIEW

The present report describes some of the tools, techniques, and approaches that secondary school vocational educators use to direct change activities. The report also presents early evidence of successful use of two sets of vocational education resource materials. These materials synthesize information on topics of critical interest at the secondary school level.

Several questions guided the development of this report. These questions are What external influences are most likely to play a key role in whether or not schools can implement a change activity?, What internal resources are most important?, and How do external and internal influences combined to promote or hinder level of use of an educational product?

The two sets of materials discussed in the present report were specifically developed to meet the needs of secondary school staff in addressing two critical problems facing today's schools and their members. The two innovations are entitled BASICS: Bridging Vocational and Academic Skills, and CONNECTIONS: School and Work Transitions. The BASICS educational resource helps teachers provide students with the basic skills needed by today's work force. CONNECTIONS will help ease the problems involved in the transition from school to work. The materials are based on research findings from studies by the National Center for Research in Vocational Education and are designed to initiate and/or supplement a program improvement effort at the local secondary school level.

Six sites were selected to implement the BASICS materials and six to implement the CONNECTIONS materials[1]. Ongoing assistance was offered to each of the 12 sites during the implementation process. The findings of this report are based primarily on data

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[1]Applicants not selected to participate as 1 of the 12 demonstration sites were provided with 1 of the 2 packages and received assistance in setting up the implementation, but did not receive intensive follow-up. Data from these additional sites were not included in this report.

obtained from the site coordinator and, in some sites, from staff who used the materials. Consequently, the findings should be of interest both to staff at the sites and to future users of the BASICS and CONNECTIONS materials as a source of experienced-based practical knowledge and creative approaches to problem solving.

The organization of the report is as follows. The theoretical framework, methods of data collection and analysis are presented in chapters 2 and 3. The fourth chapter describes strategies schools used to implement the materials, offers firsthand information about problems encountered and their resolution. The final chapter discusses some common findings across sites about the processes of change and offers recommendations to potential users of comprehensive educational resources.

## Descriptions of the Resource Materials

### BASICS: Bridging Academic and Vocational Skills

Mastery of basic skills is vital to successful participation in today's increasingly complex society. Whether one seeks to enter the workplace directly from high school or to obtain further education and training, command of fundamental reading, writing, and computational skills is essential to meet these goals and to remain an active, productive individual. In addition, numerous studies have clearly shown that upward mobility in the workplace requires demonstrable success of basic skills acquisition and utilization.

The BASICS package of educational resource materials is designed to help teachers upgrade students' basic skills. This comprehensive resource is based on years of research and development activities by the National Center in improving basic skills. The package is designed with the knowledge that each school has unique needs, goals, and resources available for addressing basic skills outcomes. The package includes 11 major documents, 6 competency-based modules, an orientation videocassette, two audiocassettes, black-line masters, and 4 two-color posters. The package is divided into two general components. The Bridger's Guide contains information about the purpose and application of BASICS for administrators, counselors, and teachers. Targeted Teaching Techniques provides tools for vocational and academic teachers to use in every phase of a joint vocational-academic effort. Instructional Program Development materials provide practical and theoretical information on the development and selection of basic skills instructional materials.

CONNECTIONS: School and Work Transitions

One of the most important decisions of an individual's life is which steps to take after high school graduation. The factors that seem to play key roles in this decision are prior school and work experiences, expectations and aspirations for education and occupation, available opportunities, and family and social relationships. While still in school, students can gain a better grasp of the broad range of factors and strategies most useful in making decisions about the school to work transition. Effective education policies and practices, coupled with well-developed school guidance programs, can enhance and expand the abilities of students to make knowledgeable choices.

The CONNECTIONS resource materials are designed for use by schools to facilitate and guide effective youth transitions. CONNECTIONS compiles and adapts extensive research by the National Center on teaching essential job search techniques and on helping students to develop employability skills. Rather than allowing students to flounder using trial-and-error methods of finding an appropriate job, the materials help prepare students for employment.

The package contains 23 documents for administrators, teachers, and students; 2 videocassettes; and blackline masters. The package is divided into four components. The Coordinator's Resources component is an essential aid for staff who coordinate program development and services, because it provides information from an initial orientation phase through follow-up and follow-through. The Connectors Guide and a videocassette address the concerns of youth employment in job search activities; the videocassette serves as a springboard for discussions of students transitions into work. The Employer's Choice provides research-based, multimedia materials that help students meet employers' standards. The fourth component has three specialized tools to assist students become future workers. Work Skills are competency-based student materials developed to teach specific job search and retention skills, and to orient students to the world of work. Career Passport helps students develop experience-based resumes. An Employment File holds students' key documents that reflect qualifications for work.

## CHAPTER 2

## THEORETICAL FRAMEWORK

The theoretical framework for the present study represents a synthesis of two key research perspectives within the literature on educational change. The first perspective describes external change activities from an interorganizational framework, that is, between organizations (Louis 1981; Rosenblum and Louis 1981; Louis 1983; Hood and Cates 1983; Wiant et al. 1984). The second perspective describes change activities from an intraorganizational framework. The intraorganizational approach is based on the concerns-based model of Hall and Hord (1987), whereby teachers are critically important in the change process within an organization.

### The Interorganizational Component

An interorganizational approach to educational change postulates that nearly all activities in a complex and highly bureaucratic system are associated with organizational demands and solutions. Organizations and their members involved in change activities can assume either the role of an internal or an external change agent. The internal agent promotes change from within a given system. Examples of internal agents are teachers, principals, counselors, and career placement officers. External agents, on the other hand, transmit technologies for improvement efforts; link innovations with users; and increase the nature and extent of information available for use in decision making (Louis 1981). Both internal and external agent roles clearly are important in promoting effective change.

An interorganizational approach assumes that change activities are most likely to occur due to pressures or competition from other organizations. Consequently, political advocacy, resource dependency, and uncertainty management are key elements in determining whether or not an organization interacts with another (Galaskiewicz 1985). For example, organizations solicit assistance not only to solve specific internal technical problems, but also to gain additional resources and to create favorable public relations images. The effective external agent is able to anticipate and address any one or several of these needs as they affect the change activity. Indeed, Louis (1981) points out that an effective external agent is proactive,

knowledgeable and experienced, and pays careful attention to the needs and concerns of the local setting.

However, external agents cannot function alone in transmitting and effectively implementing an innovation. The external role has been described more as a "pair of hands that transmit information" to potential users (Louis 1981), rather than as a role in which information is used to direct specific change activities on a daily basis.

An interorganizational approach allows assessment of the extent of change within local education systems due to outside influences from state and local organizations. However, the educational change literature suggests that internal needs and demands also will play key roles in determining the magnitude of change within a school or district.

## The Intraorganization Component

Consensus about change is that local administrators are key decision makers both at the decision stage in implementing an innovation and at the institutionalization stage (Hall and Hord 1987). However, once an initial decision has been made, the next and most critical component is usage, which is determined by the concerns and levels of use by teachers (Hall and Hord 1987). Hall and Hord (1987) emphasize that evaluating change from the teachers' perspective is essential because teachers are "front-line users." They argue that whereas policymakers, administrators, and other staff have important points of view, in the end "how teachers feel about and perceive change will in large part determine whether or not change actually occurs in classrooms" (52-55).

Similar arguments have been expressed by scholars studying the processes of educational evaluation. Patton (1978) favors a "utilization-focused evaluation," whereby change and its evaluation is based on site-specific needs of staff. Lawrence and Cook (1983) argue that the needs of "stakeholders" (i.e., those who have a direct interest in the program to be evaluated) should be determined and directly incorporated into both development and evaluation processes. These arguments suggest that all school staff who have a direct interest in the change process will affect the process of implementation but that administrators and teachers play key roles.

As is the case between organizations, members' reasons for becoming involved in a change activity can be surprising. Patton (1978) finds that only "political considerations" and the "personal factor" are important for utilization. Political considerations include collecting information to reduce uncertainty or "just in case." Personal factors predominantly are based on whether questions are asked that cause one individual to

take direct, personal responsibility for the change. Chin (1981) emphasizes from his empirical study of mandated dyadic change that personal and political struggles between key actors must be resulted first. From a review of two national educational demonstration projects, Louis (1983) cautions that knowledge use does not necessarily imply change. She points out that information can be solicited to win arguments, to confirm current practices, and to increase status. Clearly, it is important to know what needs are important to members of an organization contemplating change and to tie these needs to specific implementation approaches.

The concerns-based model provides a systematic means by which to assess stages of change within the school based on teachers' concerns and levels of use of a resource. Concerns change over 1987, time in a fairly predictable developmental process (Hall and Hord, p. 70). Consequently, emergent issues and problems can be anticipated and planned for at a broad level, but specific needs must be addressed as they arise. As Hall and Hord (1987) point out, it is possible to predict the most likely concerns profile at the outset of the change activity, based on the stage at which the organization is operating with respect to the resource, and with respect to role of the individual. Nonusers, for example, have intense informational and personal concerns that required small, repeated information sessions. As teachers begin to use the resource materials, however, management concerns emerge, and there is a need for "comfort and caring sessions" where an expert should assist in answering questions about "how to do it."

## An Integrated Framework

The change literature suggests that external and internal agents working together effect the most successful outcomes. The model for the present report integrates key concepts from the interorganizational literature about the effects of external influences on change with propositions from the concerns-based approach. The report also extends previous research efforts conducted by the National Center that examined educational change at the state level (Dorsten and Smink 1986). However, the focus here is to examine local level processes. Key inter<u></u>organizational activities to be examined in the present study are associated with the following four categories:

- STAGES OF INTERACTION, which range from collaboration and cooperation to isolation;
- EXTENT OF KNOWLEDGE FLOWS, varying from 2- and 1-way exchanges to none;
- RESOURCE FLOWS AND INNOVATIONS, such as mechanisms that bring organizations together;

- TYPES OF ORGANIZATIONAL BEHAVIOR EXHIBITED, ranging from sharing to inert, reflecting the leadership of the local organization (Chin 1981).

The concerns-based approach by Hall and Hord (1987) describes intraorganizational stages of interaction at the local level. The stages are as follows:

- AWARENESS (preliminary stage): little concern about or involvement with innovation;
- INFORMATIONAL (stage 1): interest develops in substantive aspects of innovation, such as requirements for use and the effects of using the innovation;
- PERSONAL (stage 2): uncertainty and inadequacy about the demands of the innovation emerge, particularly within role activities;
- MANAGEMENT (stage 3): efficiency, organization, management and use of the innovation are highest;
- CONSEQUENCE (stage 4): focus is on the relevance of the innovation for students and on performance, and the changes required to maximize outcomes;
- COLLABORATION (stage 5): coordination and cooperation with others in the use of the innovation are sought;
- REFOCUSING (stage 6): benefits, major changes and alternatives are considered (p. 60).

Outcome of the Study

Level of use is the outcome measure. Level of use is operationalized along seven of the eight decision points outlined by Hall and Hord (1987)[2]. These decision points are as follows:

- NONUSE: has little or no knowledge, and is doing nothing toward becoming involved;
- ORIENTATION: takes action to learn more detailed information about the innovation;
- PREPARATION: makes a decision to use the innovation by establishing a time to begin;

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2The eighth stage, MODIFICATION, was excluded due to the short period of elapsed time for implementation activities at most sites.

- o MECHANICAL USE: changes and use are developed according to user needs;
- o ROUTINE USE: a routine pattern of use is established;
- o REFINEMENT: changes in the use of the innovation are based on informal or formal evaluation in order to increase client outcomes;
- o INTEGRATION: change is initiated through use of the innovation, using input and coordination from colleagues (p. 89).

The integrated model for the present study includes concepts from both perspectives. A sketch of the working model is presented in figure 1. Figure 1 suggests that (1) external influences (e.g. state and local organizations, external agents) and (2) local administrative support determine levels of use of an educational resource to the extent that teachers' concerns are addressed. Therefore, implementation outcomes are most successful when external influences and administrator support for change are positive, congruent and consistent with each other and with the concerns of teachers.

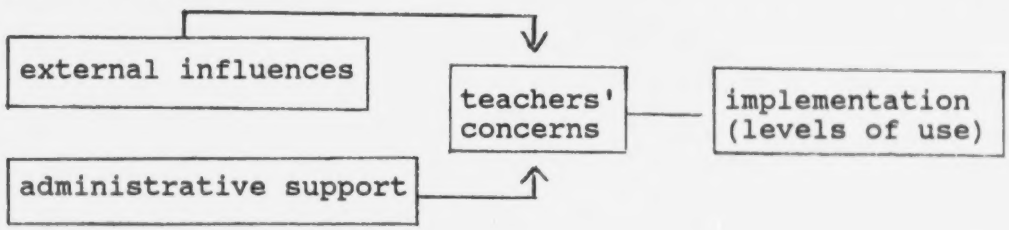


Figure 1. A working model of educational change at the local level.

We anticipated that higher levels of use of educational resource materials will occur where both external influences and local administration support are consistent with teachers' concerns. Where only administrative support is present, implementation will occur but at a lower level. However, where both external influences and administrative support are negative or nonexistent, little use of the materials will occur.

## CHAPTER 3

## METHODOLOGY

### Selection of Twelve Demonstration Sites

Applications for demonstration sites were solicited in the fall of 1986 from secondary educational organizations interested in enhancing basic skills or improving the school-to-work transition. Using a three-stage review process, 22 BASICS and 19 CONNECTIONS applications were examined. Six sites were chosen to implement each of the two vocational educational resources. Selection criteria included (1) a strong evidence of commitment to addressing the relevant problem and to the implementation process, (2) a below-grade-level student performance rate and a high dropout level, and (3) a clearly defined need pertinent to one of the two packages. The sites represent a broad range of schools across the United States in school or program type, degree of urbanization, size and extent of linkages with state and local agencies.

To facilitate communication among staff within the school or district and between the school and other organizations, each local administrator selected an on-site coordinator. National Center staff presented an individualized, full-day implementation workshop at each of the 12 sites in the spring of 1987. Participants for the workshop were selected by the site coordinator. The purpose of the workshop was to present an overview of each component of the package, and to provide hands-on experience with specific components. Participants' initial concerns and questions about the materials were addressed, and implementation approaches tailored to the school were developed. A short evaluation of each workshop by the participants indicated that responses were favorable to the materials and to the workshop experience overall.[3]

Each site was provided with the opportunity for online technical assistance during the implementation effort via electronic mail hook-up (ADVOCNET) with the National Center.

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3Two suggestions offered to improve future workshops were to allow further exploration of the materials at the site and to provide all of the materials at the workshop (only outlines of the materials were used). These suggestions have been adopted.

National Center staff members responded to questions and concerns by electronic mail and also by telephone as they arose during the implementation process.

## Data and Analysis

### Data Collection

Data were collected for the present study from several sources. First, the application file for each school site was reviewed to obtain contextual information (e.g., achievement level of students and dropout rate). Next, baseline information was obtained in the spring of 1987 from workshop participants about their professional expertise, perceptions of the school's vocational program, and anticipated goals from participation in the implementation of the research-based resource materials. Third, follow-up data were obtained from a telephone interview with each site coordinator and from mailed questionnaires completed by users of the materials at some sites.[4] Copies of the workshop participants' survey, the telephone interview with site coordinators, and the mailed questionnaire for users are included in the appendices.

### Data Analysis

An examination of the data from workshop participants reveals unique school needs, goals, and objectives. Therefore, it might be argued that one model of change cannot encompass vastly different educational systems. On the other hand, adopting an approach that takes into account diverse settings invites comparative conclusions that can be used to guide the change process overall. The present study adopts the latter argument. The focus is on ways that local staff implement an externally developed innovation across various school sites.

Reliability. For the present study, data were combined from different sources. The rationale for combining types of data is that multiple strategies of data collection and analysis enhance the reliability and validity of research when properly specified (Sieber 1973; Jick 1984). Findings obtained from one method of data collection can be used to confirm or revise the findings obtained from others. For example, information from workshop participants was used to develop questions for and review comments from site coordinators. The wide variety of program types, sites, and students involved helps to establish the reliability of the findings.

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4Some sites had not completed their user questionnaires at the time this report was written. Most of the findings, therefore, are from the interviews with site coordinators.

## CHAPTER 4

## FINDINGS: STRATEGIES, SUCCESSES, AND SUGGESTIONS

As discussed above, six schools were selected to serve as demonstration sites for the BASICS materials and six for the CONNECTIONS package. The first section of this chapter presents a comparative profile of the 12 sites. The following section describes each site and some implementation strategies that were reported to be most effective, and presents specific suggestions by staff for improving the use of the materials. The final section discusses the major findings in relation to the theoretical model guiding the study.

### Profiles of the Sites and Staff

Tables 1 and 2 provide a broad picture of each of the 12 school sites. Column 1 shows that districts, comprehensive and vocational-technical schools, and a special program for dropouts were selected. Columns 2 and 3 show the average tenure of all workshop participants at each of the 12 schools. BASICS workshop participants report higher average tenure at that school than do CONNECTIONS participants (6.5 years versus 4.4 years, respectively). CONNECTIONS participants, however, report a higher average tenure outside that school, visit other teachers' classrooms more frequently, and spend more time in instructional collaboration (columns 3-5). Differences between the two groups seem to be due to the presence of more counselors and career specialists at the CONNECTIONS workshops than at the BASICS workshops.

Table 2 shows the professional occupational profiles of workshop participants by role type. Because needs and perceptions of staff vary according to role responsibilities, we anticipated that different staff would have varying types of concerns and report different interests and uses of the materials.

### The BASICS Educational Resource Package

A short discussion of the concerns, strategies, and early outcomes at each of the six BASICS sites follows. A listing of sites is included in appendix A.

## Table 1. Pre-Implementation Profiles of Twelve Demonstration Sites*

| Innovation/Site | | | Characteristics | | | | |
|---|---|---|---|---|---|---|---|
| | | | Type of site | avg. tenure this school (years) | avg. tenure other schools (years) | avg. times visited others' classes | avg.hrs/mo. collaborate for instruction |
| **BASICS** | | **N** | | | | | |
| Jonesboro | Site 1 | 16 | VT | 6.9 | 7.6 | 2.8 | 4.2 |
| Monogalia | Site 2 | 20 | VT | 4.6 | 6.9 | 1.5 | 4.5 |
| Gwinnett | Site 3 | 16 | VT | 4.6 | 5.8 | 3.4 | 7.0 |
| Hazen | Site 4 | 10 | HS | 5.7 | 3.0 | 1.6 | 3.3 |
| Weiser | Site 5 | 5 | HS | 9.8 | 12.0 | 4.4 | 10.4 |
| Sacramento | Site 6 | 12 | D | 7.7 | 10.0 | 1.0 | 3.1 |
| Grand Mean | | | | 6.5 | 7.5 | 2.5 | 5.4 |
| **CONNECTIONS** | | **N** | | | | | |
| Tri-County | Site 1 | 10 | VT | 6.0 | 6.2 | 1.0 | 6.6 |
| Henrico | Site 2 | 9 | HS/VT | 4.2 | 6.0 | 3.6 | 6.5 |
| Milwaukee | Site 3 | 9 | PR | 1.0 | 27.9 | 2.3 | 5.8 |
| Highline | Site 4 | 11 | D | 5.7 | 6.4 | 3.1 | 4.4 |
| Lexington | Site 5 | 8 | VT | 5.1 | 8.2 | 2.3 | 5.8 |
| Leon | Site 6 | 3 | HS | .5 | 11.0** | 10.0** | 11.0** |
| Grand Mean | | | | 4.4 | 9.4 | 3.7 | 6.7 |

**Note:** * (Mean of Workshop Participants' Responses). Missing data excluded in computations.
** Less than 5 responses.

**CODES:** VT - voc-tech center
HS - comprehensive high school
D - district
PR - special project

## Table 2. Professional Profiles of Workshop Participants*

| Innovation/Role Type | | Site Characteristics* | | | |
|---|---|---|---|---|---|
| | | avg. tenure this school (years) | avg. tenure other schools (years) | avg. times visited others' classes | avg. hrs/mo. collaborate for instruction |
| **BASICS** | **N** | | | | |
| Instructional staff (voc) | 50 | 6.8 | 4.9 | 2.3 | 5.0 |
| Instructional staff (non-voc) | 11 | 4.8 | 8.0 | 3.8 | 5.8 |
| Administrators (voc) | 5 | 11.8 | 8.8 | 10.0 | 10.4 |
| Counselors and career officers (voc) | 12 | 7.4 | 13.5 | 2.8 | 2.3 |
| **CONNECTIONS** | **N** | | | | |
| Instructional staff (voc) | 30 | 5.0 | 6.8 | 1.7 | 4.9 |
| Administrators (voc) | 3 | 15.0 | 6.3 | 8.0 | 11.3 |
| Counselors and career officers (voc) | 12 | 1.7 | 13.8 | 4.2 | 5.2 |

**Note:** * Mean of workshop participants' responses. Missing data excluded in computations.

Gwinnett Vocational-Technical Center

Gwinnett is a half-day suburban secondary vocational center serving five high schools in Georgia. Thirty percent of all students at Gwinnett are below grade level on standardized achievement tests.

Gwinnett school staff have been concerned about increasing math and communications skills of all students. Prior to selection as a demonstration site, the school had established a 2-year task force to initiate a study of the current status of basic skills in the school. The school also had developed a model system, with recommendations about strategies for making the system operational.

At present, the BASICS materials are being used to assist in teaching math and communications skills to all classes in the school. Communications skills are taught by providing a number of projects and exercises that are relevant to communication but are based on other school assignments. Current communications activities include classroom public speaking exercises. The use of the BASICS materials schoolwide has helped to (1) promote staff development activities, (2) develop basic skills in students, and (3) expand vocational services and programs.

The school principal has served as the site coordinator. He assumed responsibility for use of the materials, invited a speaker to discuss curriculum-related issues with school staff, and developed an electronic scoring system to help teachers grade the results of basics skills outcomes.

To defuse any initial resistance from teachers, he recommends (1) seeking groundwork support from faculty, (2) developing specific strategies supported by local administration, (3) providing staff development for curriculum activities and (4) "not trying to do too much at once." Plans for next year include hiring full-time math and English teachers, and bringing 10th graders to the school to take math and English-communication classes for credit.

Hazen Public School

Hazen is a rural comprehensive high school with approximately 250 students. As is the case across the state of North Dakota, the current focus at Hazen is on students who are potentially at risk of dropping out or who are not succeeding in school in general. The prime interest of Hazen school staff in developing basic skills is reaching lower level and unmotivated students in the areas of math and communications arts and having them apply these new skills to vocational activities. Hazen stresses basic skills development in the ninth grade, and the principal, who is

also the site coordinator, reports that students in general do not have major problems. However, schoolwide attention is being directed to an overall increase in students' levels of basic skills.

According to the principal, no basic skills activities were in place prior to selection of the school as a demonstration site. Implementing the BASICS materials has been difficult because of lack of funds and loss of some staff who were working with the materials. Also, the principal notes that because the school is a comprehensive high school, the vocational emphasis is less extensive and additional time for successful implementation could be required.

Some progress has been made in using the materials to enhance study skills, especially in math. Anticipation is that next year will offer better prospects for more comprehensive use of the resource materials.

Monongalia Vocational-Technical Center

Monongalia is a suburban school with approximately 3 hundred 11th- and 12th-grade students, and 50-75 adults who attend all day. Seventy-two percent of students are at or below grade level on standardized achievement tests. The school has received a JTPA grant for assisting dropouts 14-15 years of age.

According to the site coordinator at Monongalia, the state department of education emphasizes that (1) the academic teacher is responsible for basic skills acquisition, and the vocational teacher is to back up the academic teacher; (2) seats in schools not filled by secondary students are to be filled by adults; and (3) segmented classes should be offered so that students can take one or two classes rather than attend for a full year or more. For basic skills activities, 11th grade students must be identified who are below grade level on math, reading, and spelling, and who do not have an individual assessment program. At Monongalia, 25 students currently fit these requirements. Reportedly, basic skills development is being emphasized within the state of West Virginia because of the high statewide dropout rate of 25 percent.

The site coordinator is responsible for providing support services for math. She notes that bridging academic skills has always been difficult at the school due to structural and administrative constraints. For example, busing schedules vary, and coordination among administrators is somewhat problematic. As a result, the incorporation of academic skills into vocational activities has been easier than vice versa.

Three users of BASICS materials are reported to date; most are applications of concepts from the materials. First, about

one-half of the students in the school are receiving math remediation. Second, 21 students in the 10th grade who are at risk of dropping out have been coming to the center for math remediation and two periods of a vocational specialty course. By staying in school, these students will be able to come to the center as a regular student in the 11th grade and capstone into a job in the 12th. Third, some business representatives are coming into the school to promote basic skills use on the job. One local business has developed an "industrial certificate" for student attendance. Students who have perfect attendance are eligible to be included in a drawing to win a $100 savings bond.

Overall, the school currently is at the orientation stage in basic skills implementation. The coordinator notes that the future of basic skills development at Monongalia depends on the decision of the vocational administrator. She also anticipates that to cope effectively with bridging academic skills, her school (and perhaps other schools) might need to address the following issues.

- Define what basic skills development and activities can and should be according to the current limitations of the school.
- Determine the most important concerns of teachers early.
- Develop a plan of action that would provide measurable goals of early success, and seek enhanced support from all administrative staff.

Weiser High School

Weiser is a comprehensive high school located in a community of about 70,000. Approximately 15-20 percent of the students are of Hispanic origin. Weiser has received a U.S. Office of Education award for excellence in secondary school education and was selected by the Idaho State Department of Education as one of five "pilot" sites to initiate basic skills activities.

Weiser's initial approach to basic skills integration was to form a "basic skills committee" of five dedicated teachers and one administrator. This committee meets every week for 1 hour prior to the opening of school. The committee has retained the materials and worked together to determine ways to use them effectively. The Bridger's Guide has been used more extensively than other materials, primarily to develop theory and ideas for validating and upgrading previous basic skills activities.

At present, the school's approach to basic skills development is to "work across the curriculum." Several specific strategies are in place. First, about 30 at-risk students were identified early in the year (one per teacher); their level on basic skills will be assessed at the end of the year. Second, all students are

involved in "problem solving through basic skills," developing communication and computational skills, as well as building self-confidence and self-image. Third, a "student of the month" is selected to receive schoolwide recognition and dinner with parents, usually a student who is applying extra effort in some way, perhaps a self-starter or one who is working against personal limitations. In like manner, a teacher who is applying extra effort in the school is treated to breakfast at a local restaurant. All of these activities were developed by the basic skills committee.

Major outcomes from efforts to promote basic skills development in the school include the following:

- Inservice activities have been held to initiate problem solving approaches and to develop the concept of "writing across the curriculum."

- Parental, school board, and community involvement with the school has increased, which reportedly led to more positive attitudes in students. Parent-teacher conferences, which had not been held for 20 years, were reestablished, with 70 percent of all parents attending. The conferences were judged to be successful in boosting basic skills activities.

Weiser's site coordinator, a teacher with 37 years experience, offers the following suggestions to comprehensive high schools considering basic skills enhancement.

- Be clear in what you intend to do; it is important to develop forerunner activities to minimize resistance. For example, writing is a problem for all students, not just vocational. Also, determine whether basic skills development is actually a school goal.

- The state department must sanction basic skills activities . . . and administrators must adopt the idea of increasing basic skills.

- Involve the total school and the community if possible.

Sacramento City Unified School District

Sacramento City Unified School District (SCUSD) serves an inner city population in a multicultural setting. Nearly 60 percent of the students have black, Hispanic, or Asian heritages. Forty-eight percent of the student population is below grade level on standardized achievement tests. The dropout rate is 35 percent. SCUSD is a state-recognized exemplary school with extensive community involvement and a coordinated districtwide curriculum.

Implementation of the BASICS materials in SCUSD is noteworthy because of the district-level approach adopted. Very little work in basic skills development was in place across the district prior to selection as a demonstration site. The state education agency had called for increased graduation requirements, however.

The district began implementation efforts by inviting 25 teachers to a basic skills workshop. The teachers represented each of the vocational areas, plus math, science, and English. Teams were developed by subject area, with math and English teachers serving as resource persons for each team. Materials from the state's eight model basic skills sites were added to the BASICS materials, along with computer-assisted materials to identify a student's strengths and weaknesses.

Currently, five comprehensive and two continuation schools are using portions of the BASICS materials; most are at the planning and acquisition stages. The site coordinator states that much work with the materials has been to "facilitate teachers' thinking about what they are and are not doing in improving students' basic skills . . . we do not try to tell teachers how to integrate the materials, but to work with them so that they will identify with the basic skills approach."

Jonesboro Area Vocational-Technical School

Unlike the other sites, Jonesboro has benefitted from the expertise of a basic skills teacher. She used a nondirective style to defuse initial resistance to basic skills development. A team teaching approach was initiated to assist individual staff members in developing a clear focus on a particular problem and the activities to address the problem. For example, if a student in a class cannot read the textbook, the basic skills teacher and the classroom teacher work together to resolve the problem. Word games are being used to stimulate reading skills, and all students are involved in math and vocabulary development. Teachers are concerned about the consequence, performance, and needs of students; the basic skills teacher is now asked, "What should we do to help students?" Currently, the goal is to develop applied learning activities to reach new students.

At present, all teachers are using the BASICS materials in some way, and counselors are active in participating with the implementation. Most frequently used materials to date are modules 1-5 and the Bridger's Guide. The basic skills teacher also uses the "Instructional Program Development Materials" when presenting programs in other states. The school is at the routine and refinement levels of use.

Jonesboro has facilitated develpment of basic skills activities in other schools within and outside Arkansas. The school has served as a basic skills model site for secondary and

postsecondary instructional staff, especially math and science teachers. The exchanges between staff of different schools have provided important 2-way resource flows. Visiting teachers bring in materials, and the basic skills teacher at Jonesboro provides information and assistance to staff. Each school with a secondary director that initiates basic skills development usually selects one teacher to spearhead the development of the project. The basic skills teacher provides "how-to-do" reading techniques to vocational and nonvocational teachers at the workshops for these schools, and has initiated change through use of the BASICS materials (INTEGRATION level).

Positive outcomes at the Jonesboro school site include the following:

- o A change in teacher attitudes toward basic skills integration.
- o Increased self-esteem for special needs students, because these students are not pulled out of class for math and reading but learn with all students, and because tutor types of teaching and peer teaching are not labeled as 'remedial'.
- o A schoolwide drive for basic skills activities developed after viewing the introductory videotape; the basic skills teacher recommends the tape for schools that are hesitant to use basic skills ideas.

The 14 instructional staff who have used the BASICS materials offer these comments:

- o Appears to be an excellent teaching device.
- o A good resource material.
- o The material seems to be good, but I have not had enough time yet to go through all of it.
- o Material can be used to improve the image of vocational education . . . but (the process) is time consuming.

The basic skills teacher offers three suggestions for successful use of the materials.

- o Prepare a staff development workshop. Focus on using the joint effort materials and the modules first.
- o Know the materials, especially if you will be presenting the basic skills ideas to others.
- o Seek state-level and local administrative support. Select a contact person in the school who can provide feedback about the nature of activities and current outcomes.

## The CONNECTIONS Educational Resource Package

The following section describes each of the six CONNECTIONS sites and presents a short discussion of concerns, strategies, and early outcomes reported by each site.

### Henrico County Public Schools

Hermitage High School and Hermitage Voc-Tech Center in Virginia share the same suburban site. Hermitage is 1 of the 202 winners of the U.S. Department of Education's Secondary School Recognition Program. The center is one of two vocational centers in the county and currently has 450 vocational-technical students enrolled. Students come from five schools. The school is located in a community with an "average to above-average income, and supports a good mix of white- and blue-collar groups."

The school superintendent attended the National Center workshop and supports the ideas upon which the CONNECTIONS materials are based. The state director, who initiated the school's involvement with the materials, was very positive and active in assisting with development of the project. Both levels of leadership have been important in facilitating early implementation success at Hermitage.

Three teachers were selected by the school to work with the Employer's Choice and Work Maturity Skills materials. Especially favorable comments were offered about the Work Maturity Skills materials. These materials are being used in the EMR classes; the students are at the third- and fourth-grade reading level and have IQ scores of about 75. The Work Maturity Skills materials are evaluated favorably by the EMR teacher because they are "competency-based, allow for student practice, and are sequential in time order." The teacher has taped her students using these materials. Because the students are not accustomed to working independently, other resources were added, particularly when students did not understand the question asked at the end of a section. The goal of the teacher was to help EMR students develop individually, although reportedly sometimes this was difficult because the students tended to become threatened by the process. All teachers and most students rate the credentials for employment information very positively, and the job interviews video was "well received."

The school employs a consultant who attended the orientation workshop and is reviewing the CONNECTIONS materials. Each year, he conducts 4-hour seminars for seniors to help students develop work attitudes and behaviors congruent with the world of work. The seminars are held in a business boardroom, and the students assume proper dress and behaviors to provide a "real world" situation for the message of the seminar. His work with teachers to date in using the CONNECTIONS materials within this context is to help them decide what materials will best provide specific

students with requisite knowledge about the world of work, and to help leaders use the materials effectively.

The site coordinator, who is the school principal at the center, finds that some teachers "are struggling to use the materials whereas others have begun to use them more extensively." Specific components were infused into the curriculum at a controlled pace. Various supplementary materials have been included such as the California Occupational Preference System. The principal also developed a Likert-type survey instrument to evaluate use of the CONNECTIONS materials. He expects "continual use of the materials after December." Uses of the materials are at the ROUTINE and REFINEMENT levels.

Some of the most important outcomes at the school are as follows.

- The materials make the student a bit more comfortable in developing a work portfolio. This is an important tool to have for the transition from school to work, and students need to recognize this.

- The 'National Perspectives' video has been shown to all our teachers during the preschool agenda to introduce them to the materials and to our plans for using them.

- The job interviews videotape is good; students liked it . . . especially those in employment classes--students can identify with other students (actors) on the tape.

- Overall, the concepts underlying the CONNECTIONS materials seemed to be most useful at the early stage of implementation. The materials are important to help the student manage him- or herself through transition; and the materials are sequential, which leads to a comfortable feeling for teachers that translates to the student.

Highline School District, Mt. Ranier School.

The Highline School District is composed of five schools in the state of Washington. The focus for the implementation was with teachers and students in courses oriented for future employment entry (Project COFFEE). This special project is a vocational program serving disadvantaged, handicapped, and troubled youth. A fundamental goal of the project is to help these students develop the work habits needed for success on any job.

The site coordinator for the implementation is a vocational specialist. He sees the use of the CONNECTIONS materials as a "tool for the classroom to make us more effective in making students better workers." One of the first items fror the resource materials used in the COFFEE program with handicapped

students was the job interview videotape. The responses to date have been positive. "The students are able to pick out the correct interview situations from the incorrect ones, and the videotape encourages discussion." The job search skills packet offers a "research-based approach that is good. I predict that this [approach] will increase the credibility of the materials and use for students." The CONNECTIONS materials in general are a "resource that has been reviewed and has received very favorable ratings . . . they are basically lesson plans."

The coordinator stated that he was most impressed with the Work Maturity Skills section. "We seem to lack good materials on how to develop good work habits in students. These materials are the best set I have seen to teach these skills. They offer a refreshing in-depth view about the topic." He thought students could benefit significantly from use of the work skills materials in learning the importance of "keeping information confidential and not gossiping about earnings and other employees."

The site coordinator reported that he used several strategies to provide a smoother implementation. First, he developed for each teacher a one-page summary of CONNECTIONS and how to use the materials. Second, he talked to each teacher individually and asked each to contact him if problems developed; he notes that some did and some did not. He also talked to each teacher about the materials and their use when he met to discuss other matters. Teachers in the COFFEE program are at various stages of implementation.

The purpose of using the CONNECTIONS materials in the school was twofold: (1) to prepare students for the CO-OP work experience and (2) to teach general work skills as part of the general curriculum. The coordinator notes that the school will be using all of the materials eventually and probably next will use the materials in the Diversified Occupations program. His plans are to schedule a 1 1/2-hour orientation session to introduce the materials to the teachers who don't yet know anything about them. "The keys, I think, are in the orientation, and of course, in the support of administration. In my opinion, any vocational instructor should have the CONNECTIONS materials; they are an important part of what we should be doing with students. I see the [use of the materials] expanding to include all teachers."

The coordinator suggested that use of the materials requires consideration of the following points.

- You can't just give the teachers the materials to use--there is too much information there. The teachers who did go to the workshop had an overall view of what the materials were about, but those who did not attend did not..you really have to sit down and spread out the materials, see what is there and how you can use them.

- [Ordering the materials for each teacher allowed access] without the clerical barriers . . . we need to address how we will use the materials in the future, however. We probably will provide a notebook (set of materials) for each teacher.

Leon County Schools, Rickards High School.

Rickards High School, located in an urban area in Florida teaches students who are all below grade level on standardized achievement tests. Ninety percent of graduates go directly into the labor force. Leon County has been active in seeking Perkins funds for school/work-related activities, for example has developed and implemented Leon's Intensive Training for Employment (LITE) program. The LITE program is an intensive training program for exceptional education students with emotional and mental handicaps and specified learning disabilities. LITE staff are active in initiating similar programs throughout the state.

Because the LITE program was in place prior to introduction of the CONNECTIONS materials, the site coordinator (who also is the LITE program coordinator) notes that "many materials and resources were available to us that were satisfactory, but we have used the CONNECTIONS materials to add to these. We have a variety of students with special needs. We like your materials because they are concise, provide learning objectives and are clearly written--especially Career Passports, which I think is the 'Bible' or key component."

The teacher coordinator for the LITE program obtained the materials and organized them during a leave of absence. Her professional background is in exceptional education and what she especially likes is that "anybody can take these materials and use them. You don't have to have a master's degree in vocational education." She uses the materials every day and supplements them with others. Students like the "motivational aspects that the materials stress--why they are working and what the benefits of working are." The teacher uses role-play, group discussions, and similar activities. She especially favors the short and simple objectives at the end of each section. "Students here have a very positive attitude and are motivated; they have become quite willing to talk to others about what they have gained from the program."

The LITE program has been very successful and is highly visible in the state; it has received state education agency commendations and provides other schools with assistance. LITE also has a strong interagency network in the city with organizations such as JTPA. The coordinator reports that "it is through these contacts and communications that your materials are traveling to others."

The coordinator states that the materials "would be excellent for CO-OP programs and in dropout or alternative education programs. To do this effectively, however, "what is needed is to network the materials to personnel such as a curriculum development specialist . . . the materials also could be used as a 'self-contained unit' in programs with low-functioning students and could be placed in career education labs so the materials could be checked out. I think CONNECTIONS could be very effective as a key resource if used this way."

The coordinator concludes with the comment that "I think employability skills should be a required class for all high school and middle school students . . . The foundations for employment are general job skills and being able to communicate. We have woven these ideas into the LITE curriculum for the last four years. We want students who are self-confident and can be employable effectively . . . it is important to prepare students for work, and also to prepare them for being able to maintain a job."

Lexington Vocational Center.

The Lexington Vocational Center in South Carolina serves students from three high schools who are primarily from rural backgrounds. Over 98 percent of the students are at or above grade level on standardized achievement tests. The center is located in the third fastest-growing county in the state. The CO-OP program at the school has been designated by the state as a model program for school year 1987-88.

The site coordinator reports, "At present across the state, workplace literacy is paramount. At the center we stress basic skills first, and then employability skills. We only have 5 students from last year's class of 199 who are not employed, and three are not seeking employment. We have an enormous industry base here due to expansion from the north, and this growth has helped us develop a good school system. We are tightly integrated with business and industry, and have an advisory committee for each craft area."

"The first use of the CONNECTIONS materials was in the IEP program; several staff members selected materials for initial use. From use in IEP classes, the assistant director of curriculum became interested in employability skills development for CO-OP students. Consequently, we had an inservice workshop for CO-OP instructors. I have had several calls from participants of a summer session where I talked about employability skills, and several of these participants have ordered the materials. The state education department also ordered a set for the library . . . .. We rotate the materials to staff here; I have kept the booklets, however, and the tapes are in the library. I would rather see the materials in teachers' hands than sitting on the shelf."

An IEP teacher has been using the CONNECTIONS materials for her students in IEP classes and with other students as well. She states, "I think that the 'Employability Skills' information is presented at a good level and is very satisfactory, especially for lower level students. I sat down with the CONNECTIONS materials and wrote IEP goals from each booklet. I also think that the interview materials are good for CO-OP programs. I have also used the 'Job Search' and 'Work Maturity Skills' components, and will be using the videotapes, possibly when working with adults . . .. We see several uses for the CONNECTIONS materials - in autobody technology classes to upgrade skill training, and in the CO-OP program. Some 810 CO-OP students are using materials from the interview section to work on employability skills development and to write resumes. I recently went to a convention in Nashville and shared my experiences about using the Work Maturity Skills in developing social skills with the handicapped."

The site coordinator points out several issues that potential users of the CONNECTIONS materials should consider.

- We have three types of teachers here: those who are innovators and ready to try something new, those who need someone to tell them how to use the materials, and those who are reluctant to change because they are used to doing things their own way. Each type has different concerns and requires different (implementation) strategies. Also, to build an overall momentum, I started the CO-OP program a year early; then we added the relevant CONNECTIONS materials.

- I think the most effective component is the job interview tape. You have used the same actor or actress in each sample, so that the attitude changes of the actor/actress when showing different strategies for interviewing do not prejudice the students. It is one piece of the materials that teachers can pick up and use without very much planned time . . . teachers who come to visit our center view it.

- It takes some time to determine what you really have in the set of CONNECTIONS materials and how to use (them). Uses must be planned and worked on.

Milwaukee Public Schools, Project S.T.A.Y.

Sucess Training for At-Risk Youth (Project S.T.A.Y.), an inner-city project that is part of the Milwaukee Public School System, is in its first year serving economically disadvantaged and JTPA-eligible students. The project is a state-funded 1-year #rogram providing intense effort for at-risk students. Project S.T.A.Y. focuses on basic skills development, job acquisition and

retention, specific vocational training and tryout employment. The goals of the program are positive program termination and full-time unsubsidized employment.

The goal in enhancing job success is to link basic skills, vocational training, and work experience in intensive individualized instruction and to provide work experience for students who are at high risk of dropping out of school. At the time of application as a demonstration site, staff estimated that the project would serve a student population that is 90 percent black, most of whom are at or below grade level on standardized achievement tests. The project is guided by an administrator, four counselors, and four teachers.

Implementation at Project S.T.A.Y. provides a distinctly different view of the materials and how they can be used to assist in the school-to-work transition. Students coming to the program who fit at-risk categories as identified by their schools; use of the materials has just begun with four counselors. Because staff are working with students who have no goals set and no priorities developed for career choices, extensive prior work had to be established that would be less likely to be required across a school or district.

At present, staff are using the Orientation to Work materials. They report that the materials are "working well . . . We like the materials and they have added a great deal to our program . . . We are especially interested in changing student attitudes and increasing or developing motivation in these students . . . We have not used the videotapes yet, although the job interview tape seems to fit better with what we're doing . . . The counselors have reviewed the "Priorities" section because we're interested in a positive termination in the program and getting a student to work 40 hours a week in unsubsidized employment . . . We probably will get to the job search skills at the end of January."

Examples of how the materials are being put to use with the students of Project S.T.A.Y. include the following:

- Students come to the project facilities one day a week. Current activities include using the second part of Orientation to the World of Work materials in discussing aptitudes and occupational preferences, and in selecting a career.

- Some students in small class sessions view a videotape that has been selected to go along with a unit of the materials; other students work on answering questions from the orientation booklet, or with a software item.

- Group discussions are promoted; staff bring up topics related to employment and provide feedback. Computer-scored mastery tests were used last year, but might not be used this year.

- The significance of use of the CONNECTIONS materials has been to provide students with career direction and attitude change and to motivate them to select a job rather than say "I don't know" when asked what type of job they would like.

Tri-County Regional Vocational-Technical Center.

Tri-County is a full-day suburban vocational-technical school in Massachusetts. Eighty percent of the graduating class enters the work force immediately after graduation. The dropout rate is 22 percent, and 40 percent of the student body currently is below grade level in achievement.

Tri-County is at the planning and acquisition stage in implementation. However, two activities have been established regarding the use of the CONNECTIONS materials. First, one instructor has used the materials to develop and write a grant for expanding adult education at the vocational-technical center. Second, plans are to use the job interview videotape and job search materials to assist current seniors who are enrolled in Distributive Education to develop resumes and complete job applications. Eventually the videotape will be shown in the junior year to students who will participate in cooperative education activities as seniors.

## Summary of Findings

Implementation of a new innovation within schools is a time-consuming, complex and sometimes serendipitous activity. Each district school or project has unique needs and interests, and each requires specific strategies to introduce new routines into established activities successfully. Staff and fiscal resources vary, as do professional communication and knowledge flows and levels of administrative leadership. Positive climates of support for change are essential, however, across all types of sites.

Table 3 provides a summary of the general level of use of the two types of resource materials, and lists some examples of the types of materials each site has used.

Table 3 shows that use of the materials to develop a conceptual framework has taken place at all sites. Specific level of use varies by site and by type of materials used, however sites with a curriculum specialist involved in the implementation report

TABLE 3

EXAMPLES OF RESEARCH-BASED RESOURCE MATERIALS ADOPTED AND LEVELS OF USE, BY SITE

| Resource/Site | Level of Use[a] | | | | | | |
|---|---|---|---|---|---|---|---|
| | I Orientation | II Preparation | III Mechanical Use | IV Routine Use | V Refinement | VI Integration | Resource Adopted |
| **BASICS** | | | | | | | |
| Jonesboro | → | → | → | → | → | | Bridger's Guide Modules 1 - 5 Instructional Program Development |
| Monongalia | → | → | →* | | | | |
| Gwinnett | → | → | → | →* | | | |
| Hazen | → | → | →* | | | | |
| Weiser | → | → | →* | | | | |
| Sacramento | → | →* | | | | | |
| **CONNECTIONS** | | | | | | | |
| Tri-County | →* | | | | | | |
| Henrico | → | → | → | → | → | | Employer's Choice Work Maturity |
| Milwaukee | → | → | → | | | | Orientation to Work |
| Highline | → | → | → | | | | Work Maturity Job Interviews Video |
| Lexington | → | → | → | | | | Work Maturity Job Search |
| Leon | → | → | → | → | | | Employer's Choice Work Maturity |

NOTE: Examples listed are not exclusive; see text for more information about resources used at each site.

[a]See text for discussion of "Level of use" as an outcome.

*Use of resource primarily for conceptualizing strategies for later use.

the highest levels of use, as do sites with established and related forerunner activities. Greater progress was made overall, however, at sites with established activities, strong administrative support, and a person to spearhead the project.

Level of use attained was highest at BASICS sites with (1) strong administrative support, (2) staff and fiscal resources targeted to basic skills development, (3) clear goals, objectives, and outcomes defined at the start of the project, and (4) a dedicated, skilled staff member or committee to spearhead project activities. Most of these characteristics were associated with higher levels of use at the CONNECTIONS sites also, although they seemed to be of more importance to success in basic skills development. Possibly one reason for the differential findings is that the BASICS materials requires "joint effort" from academic and vocational teachers which requires curriculum development activities and start-up time, whereas school-to-work transitions are well-established, especially in vocational programs. Also, as tables 2 and 3 show, instructional staff at the BASICS sites report a higher average tenure at their schools and fewer professional interactions than at the CONNECTIONS sites, suggesting that change might be more difficult to initiate with staff who have well-established routines not necessarily geared to the change activity.

In general, the model specified in figure 1 is a useful conceptual tool for anticipating and responding to the needs of secondary programs in early stages of implementation of research-based resources. Indeed, the findings suggest that state mandates or models and state and local community support are important influences on level of use. However, even more critical is strong administrative support in both initial decision making and throughout the implementation process, especially where other forms of support outside the school or district are limited or nonexistent. Both external influences and administrator support determine the extent to which teachers seem to be willing to tolerate disruptive change activities. There is little incentive for a school staff member to modify routines if positive support is not forthcoming. Most important is to recognize that all staff at the local level play vital roles in implementation; the potential for success is greatly diminished without the ongoing input and interest of each member associated with change activities.

# CHAPTER 5

# SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

## Summary

This report describes levels of use of a research-based educational resource by 12 secondary education sites across the United States during early stages of implementation. The specific objectives of the study were to describe some of the tools and techniques staff use to implement a comprehensive change activity at the secondary level, and to determine the processes associated with early stages of change. A conceptual model was specified to anticipate needs, problems, and issues that would be of greatest concern to staff during implementation activities.

The methodology of the study included examination of data from National Center project files for each of the 12 sites, a preimplementation survey of the workshop participants at each site, and telephone interviews with each site coordinator and a survey of users after adoption of materials.

## Major Findings and Conclusions

The findings of the present study lead to the following conclusions about the outcomes from adopting BASICS and CONNECTIONS materials.

- Research-based vocational education resources offer "how-to-do-it" frameworks of ideas for teachers; help defuse staff, advisory committee members, and school boards who are resistance to change; and set the climate for change across the school or district.

- Research-based resources reinforce many activities that teachers already do but help to establish the activities as a schoolwide effort to be shared rather than undertaken alone.

- Research-based resources that integrate findings from a variety of studies are especially useful for staff in states where few materials exist about the topic, and can be helpful in working with special populations such as handicapped students.

- Research-based information can increase the credibility of a learning activity with students, especially with those who are neutral or negative about educational settings and processes. Students especially like clearly written, well-organized materials with a practical emphasis and materials that include visual aids that allow for classroom discussions.

- Successful implementation of research-based resources requires a long-term commitment, the ongoing attention of at least one key staff member in the school or program, and the unequivocal support of local administration. In some schools, a dedicated committee of several staff members might produce more effective outcomes, especially if initial resistance is high, or the resource to be introduced is likely to encourage resistance. Successful implementation also is facilitated by strong interest and commitment by the state director oif vocational education.

- Implementing research-based materials successfully requires careful attention to the local context and to the kinds of activities already established within the school.

- Goals of implementation must be clarified and specific strategies developed to build on activities already in place. For example, inservice workshops could develop into problem-solving sessions, parent-teacher meetings can reinforce the importance of the school's interest in the problem, and businesses could underwrite a portion of the implementation effort. Local media attention could help to establish the credibility of the project, especially if the project is school or district-wide.

## Recommendations

The following recommendations are offered to staff considering whether to implement the BASICS and CONNECTIONS vocational education research-based resources in their program, school, or district.

- Determine whether the activities to be undertaken can be effective to assist teachers in working more closely with students.

- Develop a school- or district-level definition of the project, its goals, the most potentially useful strategies to carry out the goals, and several key outcomes that the effort should produce.

- Select an administrator, teacher, or committee to spearhead the project with strong levels of interest, motivation and skills in the activities the project will require.

- Seek administrative and state support and select a staff member in the school who will provide feedback about the project. The staff member can be a committee member or someone appointed by the individual spearheading the project but should be a person who is actively involved and willing to assume ongoing communication responsibilities about the change effort.

- Consider exchanging curriculum materials, assistance, and information with staff in other schools, especially at sites that have undergone or are in the process of undergoing a similar type of change activity.

- Research-based information can be valuable as a source of new ideas, useful as a tool by which to build support for new efforts, and effective as a means by which to develop collaborative efforts among staff. However, one or several staff members must be willing to determine how to use the materials, to coordinate individual efforts most relative to school needs and resources, and to <u>spend time</u> becoming involved with the materials. Otherwise, the new information they contain can overwhelm and threaten the stability of the entire project.

# APPENDIX A

## Program Improvement Demonstration Sites

## Program Improvement Demonstration Sites
(1987 - Level 1)

### BASICS: Bridging Vocational and Academic Skills

Jonesboro School District
Area Voc-Tech School
1727 S. Main Street
Jonesboro, AR 72401
CONTACT PERSON: Tommy Brown
(501) 935-9860

Scramento City Unified School Dist.
4701 Joaquin Way
Sacramento, CA 95822
CONTACT PERSON: M. Frances Rosen

Gwinnett Vocational Education Ctr
GVEC/Parkview
1000 Cole Drive
Lilbun, GA 30245
CONTACT PERSON: Roy Rucks
(404) 921-2826

Weiser High School
RT. 1, Box 22
Weiser, ID 83672
CONTACT PERSON: Fred Beckman
(208) 549-2595

Hazen Public High School
520 First Avenue NE
Hazen, ND 58545
CONTACT PERSON: Bryan Dinkins

Monongalia County Voc-Tech Ctr
1000 Mississippi Street
Morgantown, WV 26505
CONTACT PERSON: Darlene Simmons
(304) 291-9248

### CONNECTIONS: School and Work Transitions

Leon County Schools
Rickards High School
3013 Jim Lee Road
Tallahassee, FL 32301
CONTACT PERSON: Margaret Mills
(904) 487-7314

Tri-County Reg Vo-Tech High Schl
147 Pond Street
Franklin, MA 02038
CONTACT PERSON: Bibiana Nowacki

Lexington Vocational Ctr
2421 Augusta Highway
Lexington, SC 29072
CONTACT PERSON: Linda Jacobus
(803) 359-4151

Henrico County Public Schools
P.O. Box 40
Highland Springs, VA 23075
CONTACT PERSON: Harvey Crone
(804) 737-3515

Highline Public Schools
15675 Ambaum Blvd SW
Seattle, WA 98166
CONTACT PERSON: Marty Hawkins

Milwaukee Public Schools
Project S.T.A.Y
Lincoln Downtown Educ. Ctr
820 East Knapp Street
Milwaukee, WI 53202
CONTACT PERSON: Gary Finch
(414) 272-6722

# APPENDIX B

## Demonstration Site Staff Survey

Demonstration Site
Staff Survey

School District _____
School Name _____

The questions below focus on your school's needs and interests as a Demonstration Site. Thank you for helping us obtain this information.

1. What is your job title at this Demonstration Site? _____

2. Prior to this year, how many years of experience have you had as a full-time staff member?

   years in this school _____
   years in other schools _____

3. What subject areas have you taught in the last 4 years?

   most frequently taught _____
   second most frequently taught _____
   do not teach classes _____

4. During this school year, how much time per month have you spent with other teachers on collaborative work related to instruction (e.g. lesson planning, curriculum development)?

   less than 59 minutes ____ per month
   1-5 hours ____ per month
   6-10 hours ____ per month
   11-16 hours ____ per month
   17+ hours ____ per month

5. During this school year, how often have you visited another full-time teacher's classroom to observe and discuss their teaching techniques or instructional strategies (exclude student and substitute teachers)?

   never ____
   once ____
   twice ____
   3-4 times ____
   5-9 times ____
   10 or more times ____

---

Please return to:

Dr. Jay Smink
National Center for Research
in Vocational Education
Ohio State University
1960 Kenny Road
Columbus, Ohio 43210-1090


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6. How much <u>actual</u> influence do you think each of the following persons (or groups) in your district has on:

<u>establishing curriculum?</u>

| | None | Some | A Great Deal |
|---|---|---|---|
| principal | ____ | ____ | ____ |
| superintendent | ____ | ____ | ____ |
| central office staff | ____ | ____ | ____ |
| teachers | ____ | ____ | ____ |
| parents | ____ | ____ | ____ |
| school board | ____ | ____ | ____ |

<u>determining classroom instructional methods?</u>

| | | | |
|---|---|---|---|
| principal | ____ | ____ | ____ |
| superintendent | ____ | ____ | ____ |
| central office staff | ____ | ____ | ____ |
| teachers | ____ | ____ | ____ |
| parents | ____ | ____ | ____ |
| school board | ____ | ____ | ____ |

7. During this school year, what major policy changes have occurred in your school? (check all that apply)

major curriculum change implemented ___
established new performance evaluation system for teachers ___
increased graduation requirements in academic courses ___
competency testing for graduation implemented ___
others (specify no more than 3) _____
_____

8. Rank the degree of responsibility each of the following has to find training-related jobs for students in your specialty area (1 = most responsibility, 6 = least responsibility).

| | |
|---|---|
| school job placement service | ____ |
| public employment service | ____ |
| myself | ____ |
| other teacher in your school | ____ |
| guidance staff | ____ |
| student | ____ |

9. In your classes, what is the best estimate of the <u>percentage</u> of classwork and homework time spent by students for each activity? (total=100%)

practicing specific vocational skills ____
watching audiovisual materials ____
listening to lectures and class presentations/discussions ____
applying math skills to practical problems ____
reading related material/writing (workbook, quizzes) ____
I do not teach vocational classes/not appropriate ____

10. Please rank the following goals of the vocational education curriculum at your school (1 = most important, 7 = least important).

| | |
|---|---|
| placing students in training-related jobs | _____ |
| providing students with competencies to obtain jobs | _____ |
| placing students in jobs | _____ |
| creating an awareness of jobs | _____ |
| providing students exploration of occupational areas | _____ |
| developing a strong work ethic in students | _____ |
| enhancing basic skills (e.g. math, reading) | _____ |

11. Please rate the degree of importance that each topic below is likely to have in your school in 1987-88 as a result of participation in the National Center Demonstration Site project.

| Topic | Degree Of Importance | | |
|---|---|---|---|
| A. OUTSIDE THE SCHOOL | High | Moderate | Low |
| 1. Employers | | | |
| enhance employers' interest in vocational programs | _____ | _____ | _____ |
| generate requests from employers about students' abilities/skills | _____ | _____ | _____ |
| increase number of student placements in training related jobs | _____ | _____ | _____ |
| increase number of student placements in any job | _____ | _____ | _____ |
| increase number of students obtaining job interviews | _____ | _____ | _____ |
| other topics (specify) _____ | | | |
| 2. Others | | | |
| promote/enhance parents' interest in vocational programs | _____ | _____ | _____ |
| provide expertise to other buildings | _____ | _____ | _____ |
| provide expertise to other districts/ organizations | _____ | _____ | _____ |
| generate local media interest in vocational programs | _____ | _____ | _____ |
| other topics (specify) _____ | | | |

B. WITHIN THE SCHOOL

| | High | Moderate | Low |
|---|---|---|---|
| **1. Staff** | | | |
| promote staff inservices/staff development | ____ | ____ | ____ |
| encourage teacher interaction in developing curriculum/instruction methods | ____ | ____ | ____ |
| encourage teachers to exchange professional services | ____ | ____ | ____ |
| promote teacher-student interactions | ____ | ____ | ____ |
| increase number of meetings between academic and vocational teachers | ____ | ____ | ____ |
| determine kinds of classes teachers prefer to use project materials | ____ | ____ | ____ |
| encourage others to try project materials | ____ | ____ | ____ |
| address high tech needs in applied programs | ____ | ____ | ____ |
| increase use of peer tutoring | ____ | ____ | ____ |
| increase use of individualized education programs (IEPs) | ____ | ____ | ____ |
| evaluate/modify software | ____ | ____ | ____ |
| revise curriculum | ____ | ____ | ____ |
| generate/modify standards for program evaluation | ____ | ____ | ____ |
| increase emphasis on competency-based approaches | ____ | ____ | ____ |
| determine kinds of classes students "like the material" | ____ | ____ | ____ |
| other topics (specify) _____ | | | |
| **2. Others** | | | |
| develop/expand schoolwide planning activities | ____ | ____ | ____ |
| expand vocational education services/programs | ____ | ____ | ____ |
| enhance awareness of vocational programs for non-vocational students | ____ | ____ | ____ |
| increase career awareness schoolwide | ____ | ____ | ____ |
| obtain additional resources (staff, fiscal) | ____ | ____ | ____ |
| promote in-school honors and awards | ____ | ____ | ____ |
| determine extent materials are implemented schoolwide | ____ | ____ | ____ |
| document successes in basic skills acquisition | ____ | ____ | ____ |
| increase precision in identifying job search skills for students | ____ | ____ | ____ |
| increase precision in identifying job retention skills for students | ____ | ____ | ____ |
| other topics (specify) _____ | | | |

## APPENDIX C

## Interview Guide for Telephone Survey of Site Coordinators

Interview Guide for Telephone Survey of Site Coordinators

1. What are the major state and local issues confronting the school at this time?

2. Is _____(school) presently using the National Center _____(package) materials?

3. I'm interested in anything you are willing to share about the use of the package at _____(school). For example,
   - o What do you think of the package overall?
   - o Are teachers using it? About what % of the teachers?
   - o What about coordinators and counselors? About what %?
   - o About what % of workshop participants are using the materials?
   - o Do you or others have any problems or concerns with any of the materials at this time?

4. What do you see are the most important 1 or 2 items in the _____(package) for your school?
   - o What problems or needs do the items meet?
   - o How had this problem been addressed in the school previously?
   - o In what way are the items useful for meeting the problem?
   - o Who do you think could best use these items in other schools?

5. Now I am going to ask you about some activities and behaviors that I would see if I visited your school today that use the materials in some way.

   a. First, are teacher using the materials mostly within the classroom (e.g. with students) or outside the classroom (e.g., in planning or evaluation)?
      - o which materials are being used in classrooms most often?
      - o in which classrooms? With which students? About how many students?
      - o what kinds of materials are being used outside the classroom?
      - o what are the most frequent activities that occur?

   b. Second, what method is _____(school) using to make the materials available to staff:
      - o are materials placed in a central location?
      - o did individual staff members select items they could use?
      - o do groups of staff members share some materials among themselves?
      - o other methods that have worked well?

6. What have been the 2 or 3 most important outcomes overall from use the _____(pkg name) materials to date? For example, have the materials:
   - o generated media interest?
   - o generated interest from employers and/or parents?
   - o promoted interaction in developing curriculum and instructional methods?
   - o encouraged/promoted staff inservice sessions?
   - o increased the number of meetings between academic and vocational teachers?
   - o led to strategies to expand the program to include non-vocational students?
   - o helped students develop more precise job search and retention skills?

7. What have we not discussed about you or _____(school's) experiences with the materials in the _____(package) that you feel is important to successful use?

# APPENDIX D

## Demonstration Sites User Surveys

## BASICS Package
## National Center Demonstration Sites User Survey

Job Title _____

Current Responsibilities in this School/District _____

Attended Product Orientation Workshop? _____ (Y/N)

A. Please indicate your responses to each question below with an "X" in the most appropriate category.

| Question | Category | | | | | |
|---|---|---|---|---|---|---|
| | Know nothing/ no action | Acquiring information | Made plans for initial use | Planned daily activity | Planned active use (long & short term) | Actively using/ coordinating |
| 1. What is your current level of knowledge about the BASICS package overall? | | | | | | |
| 2. To date, what level of experience have you had with each of the following package materials? | | | | | | |
| (a) Introductory Videotape | | | | | | |
| (b) Bridger's Guide | | | | | | |
| (c) Targeted Teaching Techniques | | | | | | |
| (d) Instructional Program Development | | | | | | |
| ( ) Specific Components from b, c, or d (specify) | | | | | | |
| _____ | | | | | | |
| _____ | | | | | | |
| 3. How much experience on average have other staff at your school had with the package materials? | | | | | | |



(over please)

B. **Please select 1 or 2 components** or specific items from the package that you are **most familiar with** to answer the following questions (attach an additional page if needed).
Name(s) or description(s) of materials most familiar with: _____

_____

1. What special issues or concerns did you **initially** have that you thought these materials might be able to help you address? How had you been addressing these issues prior to acquiring the package materials?

2. With which **students** and in what **classrooms** are you primarily using these materials?

| | Package Component | Type of students | Activities/Classroom(s) | Comments |
|---|---|---|---|---|
| 1) | _____ | _____ | _____ | _____ |
| 2) | _____ | _____ | _____ | _____ |

3. What **skills, knowledge and professional expertise do you have** that are likely to make your use of these materials successful?

4. To date, what do you see are the **major advantages and/or potential problems** with use of the materials by others?

5. Please add any additional comments and suggestions about use of the materials. (Attach an additional page if needed.)

PLEASE RETURN THIS QUESTIONNAIRE TO YOUR DEMONSTRATION SITE COORDINATOR. THANK YOU.



Dissemination and Utilization Program
**The National Center for Research in Vocational Education**

## CONNECTIONS Package
## National Center Demonstration Sites User Survey

Job Title _____

Current Responsibilities in this School/District _____

Attended Product Orientation Workshop? _____ (Y/N)

A. Please indicate your responses to each question below with an "X" in the most appropriate category.

| Question | Category | | | | | |
|---|---|---|---|---|---|---|
| | Know nothing/ no action | Acquiring information | Made plans for initial use | Planned daily activity | Planned active use (long & short term) | Actively using/ coordinating |
| 1. What is your current level of knowledge about the CONNECTIONS package overall? | | | | | | |
| 2. To date, what level of experience have you had with each of the following package materials? | | | | | | |
| (a) Introductory Videotape | | | | | | |
| (b) Youth Employment Videotape | | | | | | |
| (c) Connector's Guide | | | | | | |
| (d) Employer's Choice | | | | | | |
| (e) Work Skills | | | | | | |
| (f) Career Passport | | | | | | |
| (g) Employment File | | | | | | |
| ( ) Specific Components from . c, d, e, f or g (specify) _____ | | | | | | |
| _____ | | | | | | |
| 3. How much experience on average have other staff at your school had with the package materials? | | | | | | |





(over please)

B. Please select **1 or 2 components** or specific items from the package that you are **most familiar with** to answer the following questions (attach an additional page if needed).
Name(s) or description(s) of materials most familiar with: _____

_____

1. What special issues or concerns did you **initially** have that you thought these materials might be able to help you address? How had you been addressing these issues prior to acquiring the package materials?

2. With which **students** and in what **classrooms** are you primarily using these materials?

| | Package Component | Type of students | Activities/Classroom(s) | Comments |
|---|---|---|---|---|
| 1) | _____ | _____ | _____ | _____ |
| 2) | _____ | _____ | _____ | _____ |

3. What **skills, knowledge and professional expertise do you have** that are likely to make your use of these materials successful?

4. To date, what do you see are the **major advantages and/or potential problems** with use of the materials by others?

5. Please add any additional comments and suggestions about use of the materials. (Attach an additional page if needed.)



PLEASE RETURN THIS QUESTIONNAIRE TO YOUR DEMONSTRATION SITE COORDINATOR. THANK YOU.



Dissemination and Utilization Program
**The National Center for Research in Vocational Education**

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